

EXECUTIVE SUMMARY

The primary goal of this project is to launch a new nuclear engineering education program in Rhode Island. This program will benefit from the recent "Renaissance of Nuclear Power" in the United States as well as our existing experienced faculty and staff and facilities including a research reactor, a renovated nuclear engineering laboratory and classroom. We also expect to draw on the operating nuclear power plants in our region (i.e., Vermont Yankee, Millstone 2&3, and Seabrook 1). The proposed program will develop four new nuclear engineering courses (total of 12 semester credit hours) to be offered to students who are interested in specializing in nuclear engineering in addition to their main program of study leading to any of the current eight B.S. in engineering degrees. Two existing senior engineering design courses (six credits) will constitute a full-year capstone design experience for students specializing in nuclear engineering. The new courses will be developed during the first year and will be offered at a rate of one new course per semester over a two academic year duration. Allowing students to take 18 credits in nuclear reactor engineering, power plant safety, thermal hydraulics, nuclear fuel cycle, and capstone design leading to a minor in nuclear engineering.

The first course will be ready for delivery in spring 2009 with subsequent five courses in fall 2009, spring 2010, fall 2010, and spring 2011. It is anticipated that a cohort of 10-20 students will complete the course sequence by the end of the academic year 2010-2011.

The proposed program will provide a quick-start/short-pipe path to educating current engineering students majoring in mechanical, chemical, civil, and electrical engineering to complete a modern and relevant minor in nuclear engineering. These engineering graduates will be prepared to either enter the nuclear industry or enter graduate school in a current nuclear engineering graduate program.